



ALL-TRACE[®]

A TRIED AND TESTED BOLUS FOR EVERY SYSTEM



www.agrimin.co.uk

Why are trace elements essential for your cattle?

Nutritionists, veterinary surgeons, ruminant advisors and farmers have seen major quantifiable improvements in performance from ensuring animals have the precise quantities of vital trace elements and vitamins they need at key stages of their product cycle.



Copper

Important for fertility and antioxidant function for a healthy immune system as well as bone development.



Cobalt

Required for optimum utilization of energy from the diet and therefore feed efficiency. Also required for the production of red blood cells which are needed for the circulatory system.



Iodine

Included in thyroid hormones, therefore important for metabolism and growth. Strongly linked with calf vigour at birth.



Manganese

Involved in metabolism as well as skeletal development in calves and for reproduction function in cows.



Selenium

Associated with calving ease and future fertility. Has an important antioxidant role as part of the immune system.



Zinc

Important for growth of the developing calf, skeletal formation, skin & hoof health. Also improves immune and reproductive function.



Vitamin A, D₃ & E

Important for the function of the immune system and reproductive system as well as skeletal development.



Biotin*

Essential in the production of Volatile Fatty Acids (VFAs) by bacteria in the rumen and is required for the synthesis of keratin, an essential component of the claw horn. Also essential in the production of glucose which has a big role in milk production.

*Only available in our ALL-TRACE® BIOTIN GOLD bolus.



Challenge your bolus supplier for data!

The ALL-TRACE® bolus:

- 1) Is **effective** at supplementing copper, selenium, cobalt, iodine, zinc, manganese and vitamins A, D₃ and E.
- 2) Supplements cattle for **at least 8 months**.
- 3) Is **safe** to administer and is safe following administration.

What are Agrimin's ALL-TRACE® cattle boluses?

Developed by the Agrimin technical team and researched extensively, Agrimin's ALL-TRACE® technology is a "best practice" precision nutrient delivery system to optimise ruminant performance, designed and manufactured in the UK.

Agrimin's enhanced ALL-TRACE® sustained release technology is designed to precisely deliver only the levels of trace elements and vitamins that your cattle require, cutting out costly waste.

Efficacy Data

Study trial of Agrimin's new and improved ALL-TRACE® bolus technology

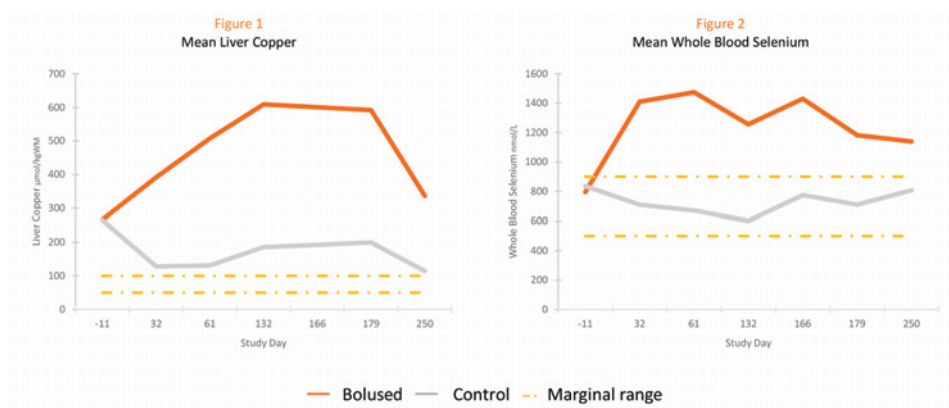
Using modern manufacturing methods Agrimin have updated their signature ALL-TRACE® bolus range to have even higher quality and efficacy. The enhanced bolus technology underwent an 8-month trial on a commercial dairy farm with marginal copper and selenium levels. The aim of this trial was to prove that ALL-TRACE® boluses effectively supplement copper, selenium, cobalt, iodine, zinc, manganese, and vitamins A, D₃ and E over a period of 8 months.

Method:

Twenty-four dairy heifers took part in the study and were split into two groups of twelve. One group were bolused with ALL-TRACE® and the others were left unbolused. Both groups were run at pasture together. Liver biopsies, blood samples and pasture samples were taken pre-bolusing as well as at 2 monthly intervals post-bolusing to determine trace element release of the ALL-TRACE® bolus.

Results:

The trial concluded that ALL-TRACE® significantly increased both copper (Figure 1) and selenium (Figure 2) levels immediately after administration and continued to supply trace elements for **at least 8 months** after administration. No bolus residue was left after 8 months. Three of the heifers in the control group became that copper depleted that they had to be supplemented and removed from the study. The twelve bolused heifers copper levels remained in the normal range of >100 µmol/kg WM for hepatic copper throughout the study.



For more information about - ALL-TRACE® go to www.agrimin.co.uk

Reference: AG-2002 Study Report 2021. Confirmatory study of the ALL-TRACE® mineral bolus in growing cattle. ALL-TRACE® is a registered trademark of Agrimin Ltd.

The journey of the Agrimin ALL-TRACE® bolus

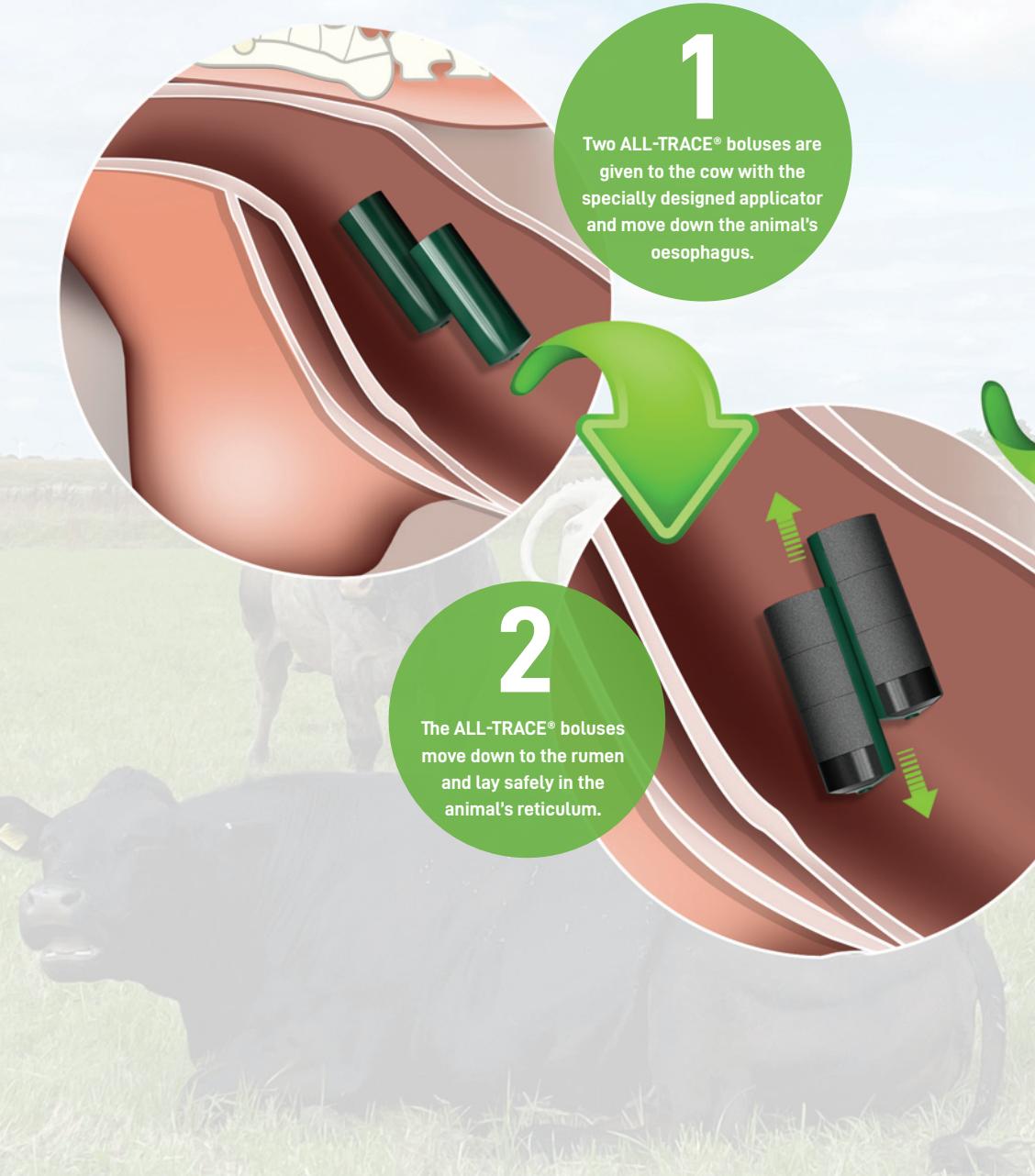
Two of Agrimin's ALL-TRACE® boluses give each cow a cost-effective method of trace element & vitamin support.

1

Two ALL-TRACE® boluses are given to the cow with the specially designed applicator and move down the animal's oesophagus.

2

The ALL-TRACE® boluses move down to the rumen and lay safely in the animal's reticulum.





3

The diagram shows a cross-section of a cow's stomach. A black cylindrical bolus is positioned in the lower part of the stomach. Above it, numerous small, multi-colored spheres (green, blue, and grey) are shown being released from the bolus into the stomach's contents. A large green arrow points from this diagram towards the right, leading to the next diagram.

Unique "physical erosion" technology produces measured and consistent delivery of trace elements & vitamins. ALL-TRACE® release just enough into the cow's bloodstream at all times.



4

The diagram shows a cross-section of a cow's body, focusing on the bloodstream. A brown calf is shown lying down, with its body partially visible. The bloodstream is depicted as a network of vessels, with a large green arrow pointing from the left towards the calf, indicating the flow of nutrients. The background shows a cow in a field.

Trace elements & vitamins flow smoothly from the cow's gut to the bloodstream for optimum utilisation in the mother and the growing calf over the active life of the bolus.

Agrimin's ALL-TRACE® technology – a bolus for every system type.

ALL-TRACE® CATTLE contains copper, cobalt, iodine, manganese, selenium, zinc, vitamin A, vitamin D₃ and vitamin E.

Nutritional Additives		Average daily supply over 240 days from 2 boluses
Copper (Cupric oxide)	152,533 mg/kg	136.0 mg
Cobalt (Cobalt carbonate)	2,234 mg/kg	2.0 mg
Iodine (Calcium iodate)	4,904 mg/kg	4.4 mg
Manganese (Manganous sulphate)	79,022 mg/kg	70.5 mg
Selenium (Sodium selenite)	2,353 mg/kg	2.1 mg
Zinc (Zinc oxide)	99,694 mg/kg	88.9 mg
Zinc (Zinc sulphate)	28,310 mg/kg	25.2 mg
Vitamin A	5,599,000 i.u./kg	3,725 IU
Vitamin D ₃	1,119,800 i.u./kg	745 IU
Vitamin E	9,631 i.u./kg	6.4 IU

Ingredients: Minerals, vitamins, iron powder, resin & wax coating.

FOR BOVINE USE ONLY.

Agrimin ALL-TRACE® CATTLE:

- Suitable for cattle over 150 kg liveweight.
- Give two boluses to each animal using Agrimin cattle applicator A.
- Active life of 240 days. There is no residue.
- Available in packs of 20 boluses.



ALL-TRACE® HIGH IODINE contains copper, cobalt, iodine, manganese, selenium, zinc, vitamin A, vitamin D₃ and vitamin E.

Nutritional Additives		Average daily supply over 180 days from 2 boluses
Copper (Cupric oxide)	147,301 mg/kg	175.1 mg
Cobalt (Cobalt carbonate)	2,158 mg/kg	2.6 mg
Iodine (Calcium iodate)	16,129 mg/kg	19.2 mg
Manganese (Manganous sulphate)	76,310 mg/kg	90.7 mg
Selenium (Sodium selenite)	2,271mg/kg	2.7 mg
Zinc (Zinc oxide)	96,271 mg/kg	114.5 mg
Zinc (Zinc sulphate)	27,340 mg/kg	32.5 mg
Vitamin A	5,445,000 i.u./kg	4,780 IU
Vitamin D ₃	1,089,000 i.u./kg	956 IU
Vitamin E	9,378 i.u./kg	8.2 IU

Ingredients: Minerals, vitamins, iron powder, resin & wax coating.

FOR BOVINE USE ONLY.

Agrimin ALL-TRACE® HIGH IODINE:

- Suitable for cattle over 150 kg liveweight.
- Give two boluses to each animal using Agrimin cattle applicator A.
- Active life of 180 days. There is no residue.
- Available in packs of 20 boluses.



ALL-TRACE® DRY COW contains copper, cobalt, iodine, manganese, selenium, zinc, vitamin A, vitamin D₃ and vitamin E.

Nutritional Additives		Average daily supply over 120 days from 2 boluses
Copper (Cupric oxide)	57,295 mg/kg	96.9 mg
Cobalt (Cobalt carbonate)	2,367 mg/kg	4.0 mg
Iodine (Calcium iodate)	10,380 mg/kg	17.6 mg
Manganese (Manganous sulphate)	90,501 mg/kg	153.1 mg
Selenium (Sodium selenite)	1,379 mg/kg	2.3 mg
Zinc (Zinc oxide)	120,812 mg/kg	204.4 mg
Zinc (Zinc sulphate)	31,629 mg/kg	53.5 mg
Vitamin A	6,171,000 i.u./kg	7,559 IU
Vitamin D ₃	1,234,200 i.u./kg	1,512 IU
Vitamin E	15,901 i.u./kg	19.5 IU

Ingredients: Minerals, vitamins, iron powder, resin & wax coating.
FOR BOVINE USE ONLY.

Agrimim ALL-TRACE® DRY COW:

- Suitable for cattle over 400 kg liveweight.
- Give two boluses to each animal using Agrimim cattle applicator A.
- Active life of 120 days. There is no residue.
- Available in packs of 20 boluses.



ALL-TRACE® ORGANIC CATTLE contains copper, cobalt, iodine, manganese, selenium, zinc.

Nutritional Additives		Average daily supply over 180 days from 2 boluses
Copper (Cupric oxide)	159,691 mg/kg	195.2 mg
Cobalt (Cobalt carbonate)	2,346 mg/kg	2.9 mg
Iodine (Calcium iodate)	5,163 mg/kg	6.3 mg
Manganese (Manganous sulphate)	82,735 mg/kg	101.1 mg
Selenium (Sodium selenate)	2,462 mg/kg	3.0 mg
Zinc (Zinc oxide)	104,370 mg/kg	127.6 mg
Zinc (Zinc sulphate)	29,593 mg/kg	36.2 mg

Ingredients: Minerals, iron powder, resin & wax coating.
FOR BOVINE USE ONLY.

Agrimim's ALL-TRACE® ORGANIC CATTLE:

- Suitable for cattle over 150 kg liveweight.
- Give two boluses to each animal using Agrimim cattle applicator A.
- Active life of 180 days. There is no residue.
- Available in packs of 20 boluses.
- Approved by Organic Farmers & Growers.
- Contains no GMOs or material of animal origin.



ALL-TRACE® BIOTIN GOLD contains biotin, copper, cobalt, iodine, manganese, selenium, zinc, vitamin A, vitamin D₃ and vitamin E.

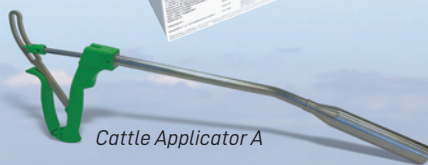
Nutritional Additives		Average daily supply over 120 days from 2 boluses
Biotin	11,381 mg/kg	19.3 mg
Copper (Cupric oxide)	57,307 mg/kg	96.9 mg
Cobalt (Cobalt carbonate)	2,367 mg/kg	4.0 mg
Iodine (Calcium iodate)	10,385 mg/kg	17.6 mg
Manganese (Manganous sulphate)	90,514 mg/kg	153.1 mg
Selenium (Sodium selenite)	1,440 mg/kg	2.4 mg
Zinc (Zinc oxide)	124,372 mg/kg	210.4 mg
Zinc (Zinc sulphate)	27,936 mg/kg	47.3 mg
Vitamin A	6,165,500 i.u./kg	7,553 IU
Vitamin D ₃	1,223,100 i.u./kg	1,511 IU
Vitamin E	15,901 i.u./kg	19.5 IU

Ingredients: Minerals, vitamins, iron powder, resin & wax coating.

FOR BOVINE USE ONLY.

Agrimin ALL-TRACE® BIOTIN GOLD:

- Suitable for cattle over 400 kg liveweight.
- Give two boluses to each animal using Agrimin cattle applicator A.
- Active life of 120 days. There is no residue.
- Available in packs of 20 boluses.



Cattle Applicator A



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